Statement of Basis - Narrative
NSR Permit

Company: Williams Four Corners LLC
Facility: Aztec Central Delivery Point (CDP)
Permit No(s).: 1327M5 and P164R2
Tempo/IDEA ID No.: 1276 - PRN20110001
Permit Writer: Melinda Owens

Fee Tracking

Tracking	**NSR tracking entries completed:** [X] Yes [] No
	NSR tracking page attached to front cover of permit folder: [X] Yes [] No
	Paid Invoice Attached: [X] Yes [] No
	Balance Due Invoice Attached: [] Yes [X] No
	Invoice Comments: $500 filing fee paid 7/19/2011. Balance of $1,320 paid 8/6/2011.

Permit Review	**Date to Enforcement:** NA, SSM conditions previously reviewed	**Inspector Reviewing:** NR
	Date Enf. Review Completed: NR	**Date of Reply:** (if necessary)
	Date to Applicant: 9/19/2011	**Date of Reply:** 9/21/2011
	Date of Comments from EPA: NR	**Date to EPA:** NR
	Date to Supervisor: TBD	

1.0 Plant Process Description:

The Aztec Compressor Station compresses and dehydrates natural gas for pipeline transmission. Natural gas is received from independent producers and metered as it enters the facility. The gas is compressed for pipeline transmission using compressors driven by natural gas-fired reciprocating internal combustion engines (RICE). The gas stream is then routed to TEG dehydrators which dehydrate the stream. The resulting produced/waste water is stored in above ground storage tanks until hauled off-site.

The facility is permitted for operation of five Waukesha L7042GL (1,478 hp) engines, one Waukesha L5108GL (1,072 hp) engine, five glycol dehydators (three 20 MMscf/d, one 12 MMscf/d, & one 10 MMscf/d). Other emission sources at the facility include fugitive equipment leaks from process piping (valves, flanges, seals, etc.).

2.0 Description of this Modification:

SSM: In accordance with 20.2.7.15 NMAC, WFC is applying to permit emissions exceeding an emission limitation due to routine and predictable startup, shutdown, and maintenance (SSM). For this facility SSM emissions include venting natural gas from compressors (Units 1a-5a & 12a) and associated piping resulting in emissions of 14.3 pph and 2.6 tons per year of VOCs and small quantities of HAPs. This represents an increase

of 0.2 tons per year of SSMs in Permit 1327M4, issued July 21, 2010.

Malfunction: Applying for a maximum of 10 tpy of VOC emissions from periodic venting of natural gas caused by malfunctions as defined in 20.2.7.7.E NMAC. This request is in accordance with AQB's guidance Implementation Guidance for Permitting SSM Emissions and Excess Emissions dated January 1, 2011.

3.0 Source Determination:

1. The emission sources evaluated include the Aztec Compressor Station.

2. Single Source Analysis:
   A. SIC Code: Do the facilities belong to the same industrial grouping (i.e., same two-digit SIC code grouping, or support activity)? Yes
   B. Common Ownership or Control: Are the facilities under common ownership or control? Yes
   C. Contiguous or Adjacent: Are the facilities located on one or more contiguous or adjacent properties? Yes

3. Is the source, as described in the application, the entire source for 20.2.70, 20.2.72, or 20.2.74 NMAC applicability purposes? Yes

4.0 PSD Applicability:

A. The source, as determined in the Source Determination above, is a minor PSD source before and after this permit.

B. The source is **not** an existing major PSD source.

C. Netting is not required; facility is not PSD major.

D. BACT is not required for this permit revision; the facility is not a major PSD source.

5.0 History (In descending chronological order, showing NSR and TV):

*The asterisk denotes the current active NSR and Title V permits that have not been superseded.

Permit Number	Issue Date	Action Type	Description of Action (Changes)
P164R2M1	Ruled Incomplete, until issuance of NSR 1327M5	TV Significant Modification	Current in-house TV Significant Modification to incorporate the changes from NSR Permits 1327M4 & 1327M5, including an increase of dehy still vent emissions and inclusion of SSM & Malfunction VOC emissions.

Permit Number	Issue Date	Action Type	Description of Action (Changes)
1327M5	TBD	NSR Significant Revision	**SSM:** In accordance with 20.2.7.15 NMAC, WFC is applying to permit emissions exceeding an emission limitation due to routine and predictable startup, shutdown, and maintenance (SSM). For this facility SSM emissions include venting natural gas from compressors (Units 1a-5a & 12a) and associated piping resulting in emissions of 14.3 pph and 2.6 tons per year of VOCs and small quantities of HAPs. This is an increase from Permit 1327M4, issued July 21, 2010, in permitted SSM emissions of 0.2 tons per year. **Malfunction:** Apply for a maximum of 10 tpy of VOC emissions from venting caused by malfunctions as defined in 20.2.7.7.E NMAC. This is in accordance with AQB's guidance Implementation Guidance for Permitting SSM Emissions and Excess Emissions dated January 1, 2011.
*1327M4	7/21/10	NSR Significant Revision	This Technical Revision, as requested by the facility, consists of a change in monitoring requirements for the SSM emission from the compressors and associated piping. The SSM emissions rate is based on facility blowdown volumetric flowrate, rather than annual number of events per compressor and facility.
*P164R2	3/4/09	Title V Renewal	Renewal of Title V permit. Incorporation of NSR 1327M3R5. Please refer to equipment and emission changes noted below.
1327M3R6	9/20/06	Administrative Revision- NSR	Name change from Williams Field Services to Williams Four Corners LLC.
P164R1M1	6/22/06	Title V Modification	Modification made to the title v permit to reflect the change of responsible company official.
1327M3R5	10.25/05	Technical Revision - NSR	Replaces 2 glycol dehydrators with smaller units, retires a third dehydrator, and retires 7 Waukesha 7042 GL engines. Result is a reduction of 28.8 lb/hr (126.2 t/y) NOx, 68.2 lb/hr (222.2 t/y) CO, and 19.8 lb/h (86.6 t/y) VOCs.
1327M3R4	12/7/04	Administrative Revision- NSR	Clarification of equipment serial numbers.
1327M3R3	9/15/04	Administrative Revision- NSR	Like-kind replacement of an engine #4. No change of emission limits.
1327M3R2	1/22/04	Administrative Revision- NSR	Like-kind replacement of an engine. No change of emission limits.
1327M3R1	6/16/03	Administrative Revision- NSR	Like-kind replacement of engine #11. No change of emission limits.

Permit Number	Issue Date	Action Type	Description of Action (Changes)
P164R1	7/26/02	Title V Renewal	The Title V permit is renewed and the modification of 1327M3 are incorporated into the permit.
1327M3	12/3/97	Pre Idea	Replaces a Waukesha 7042GL with a Waukesha 5108GL. This results in a reduction of NOx emissions of 1.3 lb/hr (5.6 t/y), a reduction of CO emissions of 2.2 lb / hr (9.8 ton/y), and a reduction of VOC emissions of 0.9 lb/hr (3.7 t/y).
P164	8/25/97	Title V Permit	Issued to incorporate the terms and conditions of NSR 1327M2.
1327M2	9/3/96	NSR Modification	Added 5 more like kind engines and 2 new dehydrators. Emission now 242.4 t/y NOx, 425.4 t/y CO, and 175.2 t/y VOCs
1327M1	3/8/95	NSR Modification	Added 5 new like kind engines and 2 new dehydrators. Emissions now 95.7 t/y NOx, 168.4 t/y CO, and 63.4 t/y VOCs
1327	9/1/93	NOI	Notification of the installation of a single Waukesha 1094 engine with less than 25 t/y of any criteria pollutant

6.0 Public Response/Concerns:

On August 22, 2011, WildEarth Guardians (WEG) and San Juan Citizens Alliance (SJCA) submitted written comments specifically regarding the application to permit startup, shutdown, maintenance, and malfunction emissions. Submittal of written comments was before the end of the 30-day comment period. They have also requested to review the draft permits before issuance.

To date, this permit writer is not aware of any other public comments or concerns with this permit application.

The Department's analysis was made available September 29, 2011.
WEG & SJCA were provided a copy of the analysis on: September 29, 2011. Thirty days will be provided for review in accordance with 20.2.72.206.A(3) NMAC.
WEG & SJCA were provided a copy of the draft permit on: September 29, 2011.

7.0 Compliance Testing:

Unit No.	Compliance Test	Test Dates
12	Tested in accordance with EPA test methods for NO_X and CO as required by permit.	09/29/00

The testing waiver for Williams Four Corners and Waukesha 7042 GL engines was officially rescinded on September 20, 2010 by Debra McElroy. By agreement with the applicant, with the issuance of NSR Permit 1327M4 (issued 7/2010), all engines (Units 1-5 and 12) became subject to Annual Periodic Testing to determine actual emissions and emission compliance.

8.0 Startup and Shutdown:

A. If applicable, did the applicant indicate that a startup, shutdown, and emergency operational plan was developed in accordance with 20.2.70.300.D(5)(g) NMAC? **Yes**
B. If applicable, did the applicant indicate that a malfunction, startup, or shutdown operational plan was developed in accordance with 20.2.72.203.A.5 NMAC? **Yes**
C. Did the applicant indicate that a startup, shutdown, and scheduled maintenance plan was developed and implemented in accordance with 20.2.7.14.A and B NMAC? **Yes**
D. Were emissions from startup, shutdown, and scheduled maintenance operations calculated and included in the emission tables? **Yes, in accordance with 20.2.7.15 NMAC, the applicant has submitted an application to permit emissions from routine and predictable startup, shutdown, and maintenance.**

9.0 Compliance and Enforcement Status: N/A, not a TV permit.

10.0 Modeling: The emissions subject to this permit revision are VOCs and HAPS which are not subject to air dispersion modeling. This is not a PSD major modification.

VOC is a precursor to the criteria pollutant, ozone. The AQB tracks compliance with the ozone National Ambient Air Quality Standards through monitoring and does not require pre-construction single source ozone modeling. Ozone modeling is too cost prohibitive to attach to a typical permit application. However, applications for PSD major new or modifications may require ozone modeling if the facility-wide VOC emissions are 100 tpy or more. These applicants are required to contact AQB and EPA to determine if ozone modeling is required.

Regional ozone modeling for the Four Corners area was done in 2009 (see http://www.nmenv.state.nm.us/aqb/4C/Modeling.html) and the Air Quality Bureau is continuing to analyze ozone in the region.

11.0 State Regulatory Analysis(NMAC/AQCR):

The permit writer verified the state and federal regulatory applicability determinations that applied to the units and the activity of venting from SSM and Malfunction emissions in permit application number 1327M5. Some determinations are taken from the NSR Permit 1327M4 statement of basis.

According to the applicant's applicability determination and verification by the department, the venting of natural gas due to SSM or malfunction and any units from which this venting would occur are not currently subject to any NSPS or NESHAP. Regardless, the permitting of SSM and/or malfunction emissions do not supersede any other federal or state regulation. The most stringent requirement applies.

20 NMAC	Title	Applies (Y/N)	Comments
2.3	Ambient Air Quality Standards	Y	20.2.3 NMAC is a SIP approved regulation that limits the maximum allowable concentration of Total Suspended Particulates, Sulfur Compounds, Carbon Monoxide and Nitrogen Dioxide.
2.7	Excess Emissions	Y	Applies to all facilities' sources
2.61	Smoke and Visible Emissions	Y	Engine Units 1-5, 12 and dehydrator Units 13a-15a, 19a, 20a are Stationary Combustion Equipment.
2.70	Operating Permits	Y	Source is major for NOx, CO, VOCs, Formaldehyde, & Total HAPs, as defined at 20.2.70.200 NMAC. PTE is > 100 TPY for criteria pollutants.
2.71	Operating Permit Fees	Y	Source is subject to 20.2.70 NMAC as cited at 20.2.71.109 NMAC.
2.72	Construction Permits	Y	NSR Permits are the applicable requirement, including 20.2.72 NMAC.
2.73	NOI & Emissions Inventory Requirements	Y	Applicable to all facilities that require a permit. PER > 10 tpy for NOx, CO, VOCs, criteria pollutants.
2.74	Permits-Prevention of Significant Deterioration	N	Source is not one of the 28 listed; PTE < 250 tpy.
2.75	Construction Permit Fees	Y	This facility is subject to 20.2.72 NMAC.
2.77	New Source Performance	Y	Applies to any stationary source constructing or modifying and which is subject to the requirements of 40 CFR Part 60. Subpart JJJJ may apply. See comments below.
2.78	Emissions Standards for HAPs	N	This regulation applies to all sources emitting hazardous air pollutants, which are subject to the requirements of 40 CFR Part 61.
2.79	Permits – Nonattainment Areas	N	This facility is not located in a non-attainment area. Non-attainment Link
2.82	MACT Standards for Source Categories of HAPs	Y	This regulation applies to all sources emitting hazardous air pollutants, which are subject to the requirements of 40 CFR Part 63, as amended through January 31, 2009 and 40 CFR 63 Subparts HH and ZZZZ apply. This facility emits 26.7 tpy Total HAPS.

12.0 Federal Regulatory Analysis:

Air Programs Subchapter C (40 CFR 50)	National Primary and Secondary Ambient Air Quality Standards	Applies (Y/N)	Comments
C	Federal Ambient Air Quality Standards	Y	Independent of permit applicability; applies to all sources of emissions for which there is a Federal Ambient Air Quality Standard.

NSPS Subpart (40 CFR 60)	Title	Applies (Y/N)	Comments
A	General Provisions	Y	Applies if any other subpart applies. Subpart JJJJ may apply.
40 CFR 60 Subpart JJJJ	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines	Y (see comments)	Units 1 and 5 are permitted but not yet installed. Both are 4SLB engines with a capacity > 500 hp. If and when they are installed, the proposed new 4SLB (1478hp) Waukesha 7042GL units may be subject to the regulation. (60.4230(a)(4)(i))

NESHAP Subpart (40 CFR 61)	Title	Applies (Y/N)	Comments
A	General Provisions	N	Applies if any other subpart applies and none applies

MACT Subpart (40 CFR 63)	Title	Applies (Y/N)	Comments
A	General Provisions	Y	Applies if any other subpart applies and Subparts HH and ZZZZ apply.
40 CFR 63.760 Subpart HH	Oil and Natural Gas Production Facilities –	Y	The facility contains affected sources (TEG glycol dehydrators, 63.760(b)(2)). The facility is a major source of HAPs. However, as actual benzene emissions are less than one ton per year (63.764(e)(ii)), the dehydrators are exempt and the records of the determination must be maintained as required in §63.774(d)(1).
40 CFR 63 Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE MACT)	Y (see comments)	Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, is applicable as the facility is a major HAP source as defined by the subpart (total Formaldehyde = 12.9 tpy and Total HAPs =26.7 tpy).

MACT Subpart (40 CFR 63)	Title	Applies (Y/N)	Comments
			Subpart ZZZZ applies differently to the engine types found at Aztec Compressor Station. Units 2,3,4, and12 are existing 4SLB engines, each with a capacity > 500 hp. The engines were constructed prior to the applicability threshold date of December 19, 2002. Therefore, although they are affected sources as defined by the regulation, as per 63.6600(c), they are exempt from the regulation and Subpart A, per 63.6590(b)(3). Units 1 and 5 are permitted but not yet installed. Both are 4SLB engines with a capacity > 500 hp. If and when they are installed, the proposed new 4SLB (1478hp) Waukesha 7042GL units may be subject to the regulation. (63.6590(a)(2)(i))

Miscellaneous	Title	Applies (Y/N)	Comments
40 CFR 64	Compliance Assurance Monitoring	N	The facility does not have control equipment.
40 CFR 70	Title V- State Operating Permit Programs	N	Operating Permit Program – is not applicable – New Mexico State has full delegated authority and Title V is administered under 20.2.70 NMAC.
Title VI – 40 CFR 82	Protection of Stratospheric Ozone	N	Not Applicable –facility does not "service", "maintain" or "repair" class I or class II appliances nor "disposes" of the appliances.

13.0 Exempt and/or Insignificant Equipment that do not require monitoring:

NSR Exempt Equipment (not entered into Tempo database)

Description	JUSTIFICATION
T-1, 6,300 storage tank (waste water)	20.2.72.202.B(5): PTE is < 0.5 ton / year
T-2 – T-3, 2,940 (each) gal storage tank (waste water)	20.2.72.202.B(5): PTE is < 0.5 ton / year
T-4, 16,800 gal storage tank (produced water)	20.2.72.202.B(5): PTE is < 0.5 ton / year
T-5 to T-16, 500 gal storage Tank (lube	20.2.72.202.B(2): VOC has a vapor pressure of less than two tenths (0.2) PSI

Description	JUSTIFICATION
oil)	Records must be kept per B(2)(b)
T-17 to T-28, 500 gal storage Tank (used oil)	20.2.72.202.B(2): VOC has a vapor pressure of less than two tenths (0.2) PSI Records must be kept per B(2)(b)
T-29 to T-34, 100 gal storage tank (TEG)	20.2.72.202.B(2): VOC has a vapor pressure of less than two tenths (0.2) PS Records must be kept per B(2)(b)
T-35 to T-40, 50 gal storage tank (TEG)	20.2.72.202.B(2): VOC has a vapor pressure of less than two tenths (0.2) PSI Records must be kept per B(2)(b)
T-41, 500 gal storage tank (antifreeze)	20.2.72.202.B(2): VOC has a vapor pressure of less than two tenths (0.2) PSI Records must be kept per B(2)(b)
T-42, 500 gal storage tank (methanol)	20.2.72.202.B(5): PTE is < 0.5 ton / year
T-43, 500 gal storage tank (TEG)	20.2.72.202.B(2): VOC has a vapor pressure of less than two tenths (0.2) PSI Records must be kept per B(2)(b)

14.0 **New/Modified/Unique Conditions** (Format: Condition#: Explanation):

Specific Condition B. SSM VOC Emission Limits – Condition demonstrates compliance with limits for routine and predictable emissions due to startup, shutdown, and/or maintenance (SSM). SSM emission are due to venting of field gas. Permittee demonstrates compliance with limits by applying the mol % VOC content from the most recent gas analysis to the amount of field gas vented.

Specific Condition C. Malfunction Emission Limits – Malfunction emissions are also from venting field gas. Since they are not predictable, the permittee must identify the source of the malfunction emissions so that enforcement and compliance can determine if any state or federal regulations were violated during the malfunction event. The permittee tracks malfunction emissions in the same manner as for SSM emissions.

General Condition 1. Reiterates the requirement that SSM emissions be minimized regardless if the SSM emission limit has been met or not (20.2.72.14.A NMAC).

General Condition 2. Emphasizes that although malfunction emission limits may be established, permittees must still minimize emissions during startup, shutdown, and malfunction. This requirement applies regardless if the malfunction limit has been met or not.

15.0 **The Cross Reference Table** between the NSR & TV permits is not required for NSR.

16.0 **Permit specialist's notes** to other NSR or Title V permitting staff concerning changes and updates to permit conditions.

A. Emission Estimate Verification:
The permit writer verified the calculations and assumptions used in emission estimates.

SSM emissions are due to venting of predictable quantities of field gas from turbines, compressors, and associated piping during routine and predictable startup or shutdown.

Compressor Units 1a – 5a & 12a are calculated to emit SSM gas loss of 6,442 scf per event. With 365 startup and shutdown blowdowns each year, the VOC emission rate is 2.6 tons per year.

Approximately 0.3 mol % VOC content was applied to the cubic feet of gas vented to determine VOC emissions. The percent VOCs was determined from a 6/8/11 extended gas analysis. HAPs were determined using the same method. No hydrogen sulfide was detected in the gas.

B. **Malfunction** emissions due to venting of field gas apply to all operations at the facility except combustion and dehydrator still vent emissions.

Applicant requested 10 tpy VOC malfunction emissions, which is the allowable limit according to department guidance and does not exceed any permitting threshold.

There are no NESHAP applicable to these activities and so no HAP limits apply.